

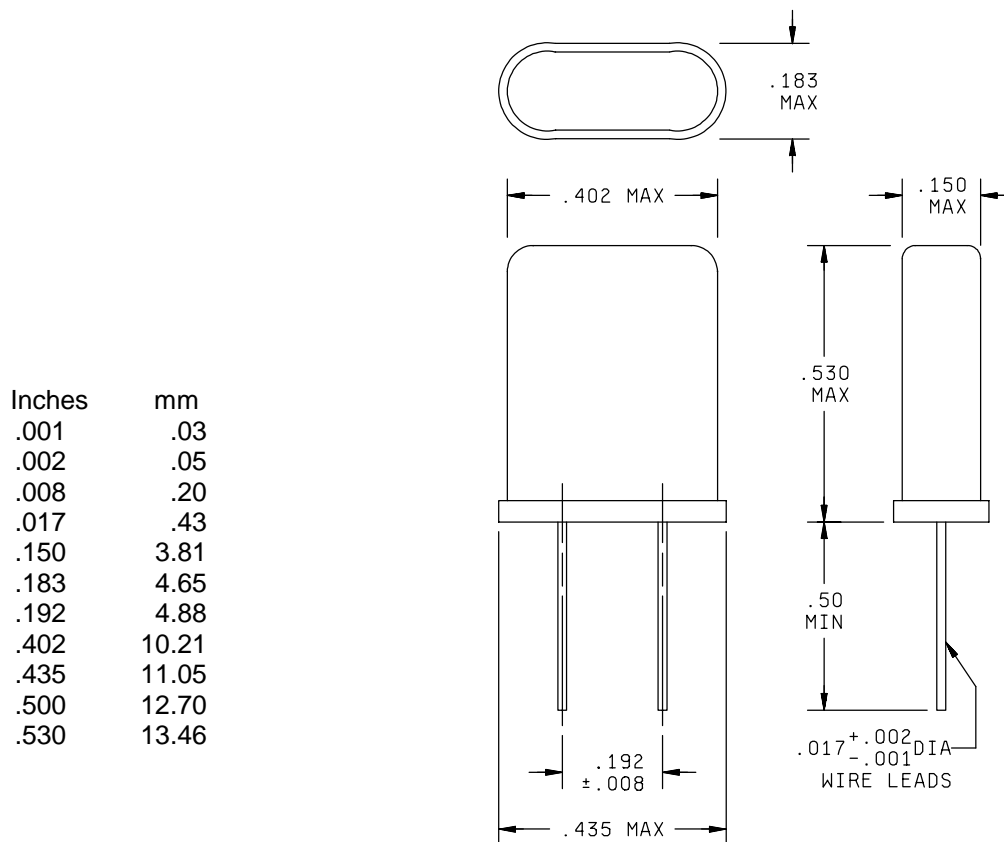
# PERFORMANCE SPECIFICATION SHEET

## CRYSTAL UNIT, QUARTZ, CR152/U

This specification is approved for use by all Departments and Agencies of the Department of Defense.

The requirements for acquiring the product described herein shall consist of this specification and MIL-PRF-3098.

Pertinent characteristics: 16 MHz to 61 MHz; third mechanical overtone; noncontrolled; series resonance.



### NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for general information only.
3. Marking shall be in accordance with MIL-PRF-3098.

FIGURE 1. Crystal unit - CR152/U.

REQUIREMENTS:

Dimensions, marking, and configuration: See figure 1.

Frequency range: 16.0 MHz to 61 MHz, inclusive

Frequency tolerance:

Primary operating temperature range:  $\pm 20$  ppm.

Secondary operating temperature range:  $\pm 30$  ppm.

Equivalent resistance: 40 ohms, maximum.

Mode of oscillator: Third mechanical overtone.

Operating temperature ranges (noncontrolled):

Primary:  $-40^{\circ}\text{C}$  to  $+90^{\circ}\text{C}$ , inclusive.

Secondary:  $-55^{\circ}\text{C}$  to  $-40^{\circ}\text{C}$  and  $+90^{\circ}\text{C}$  to  $+105^{\circ}\text{C}$ , inclusive.

Rated drive level: 1.0 mW, maximum.

Resonance: Series.

Capacitance, shunt: 3.5 pF, maximum.

Unwanted modes: Method II, minimum unwanted-to-main mode resistance ratio of 3:1.

Shock:

Frequency change permitted:  $\pm 5$  ppm.

Equivalent resistance change permitted:  $\pm 10$  percent.

Vibration: Method 204, MIL-STD-202, test condition A.

Frequency change permitted:  $\pm 5$  ppm.

Equivalent resistance change permitted:  $\pm 10$  percent.

Thermal shock:

Frequency change permitted:  $\pm 5$  ppm.

Equivalent resistance change permitted:  $\pm 10$  percent.

Aging:

Frequency change permitted:  $\pm 5$  ppm.

Marginal notations are not used in this revision to identify changes with respect to the previous issue due to the extent of the changes.

Custodians:

Army - CR  
Navy - EC  
Air Force -85

Review activities:

Army AR, MI, SM  
Navy - AS, CG, MC, OS, SH  
Air Force - 17, 19

Preparing activity:

Army - CR

Agent:

DLA - CC

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